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TITLE: INTAKE PIPE FOR INTERNAL COMBUSTION ENGINE

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INVENTOR-INFORMATION:

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ABSTRACT:

PURPOSE: To utilize intake pulsation effectively across the whole operating region of an engine so as to improve output by installing numerous volume parts of different volumes separately from the main flow part of an intake pipe, and controlling the communicated state between the volume parts and the main flow part according to the operated state of an engine.

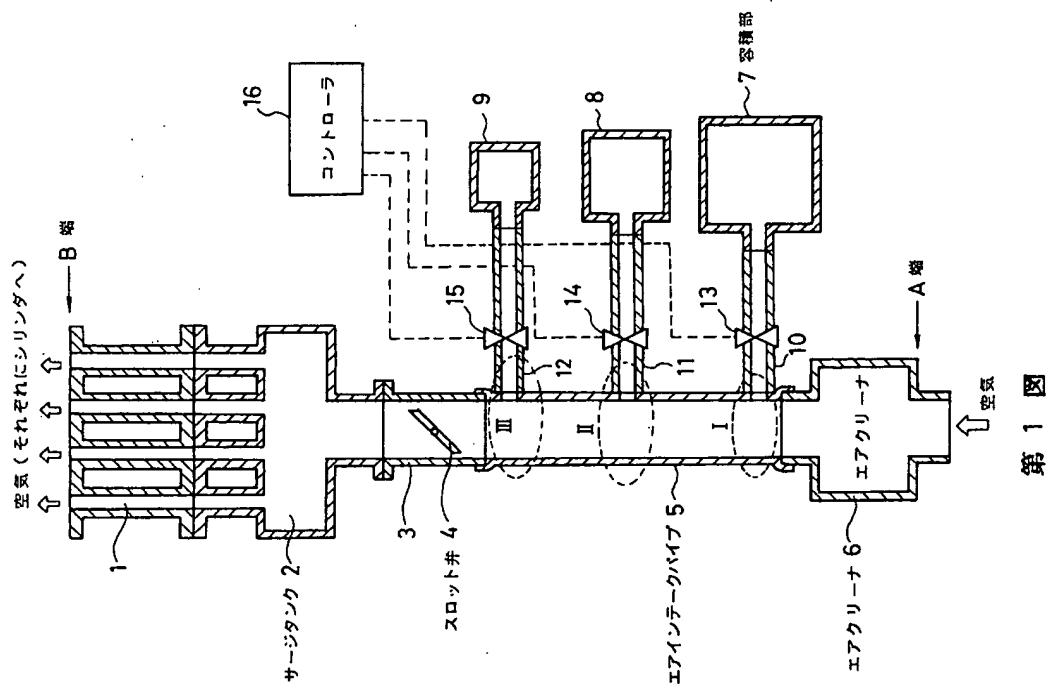
CONSTITUTION: Numerous volume parts 7-9 of different volumes are provided separately in addition to the intake air main flow part formed of numerous component parts 1-6. The volume parts 7-9 are respectively connected to the intake air main flow part, for instance, an air intake pipe 5 through respective communicating pipes 10-12. Solenoid valves 13-15 are further disposed at the intermediate parts of the respective communicating pipes 10-12, and the switching of these solenoid valves 13-15 are controlled by a controller 16 according to the operating condition. Around the low set engine speed, for instance, only the solenoid valve 13 is opened, and when the rotation approaches the set engine speed, the volume part 7 is made resonant. Pressure vibration in the volume part 7 is thereby enlarged, so that resonance is created to the whole intake system, thus heightening the volumetric efficiency of an engine.

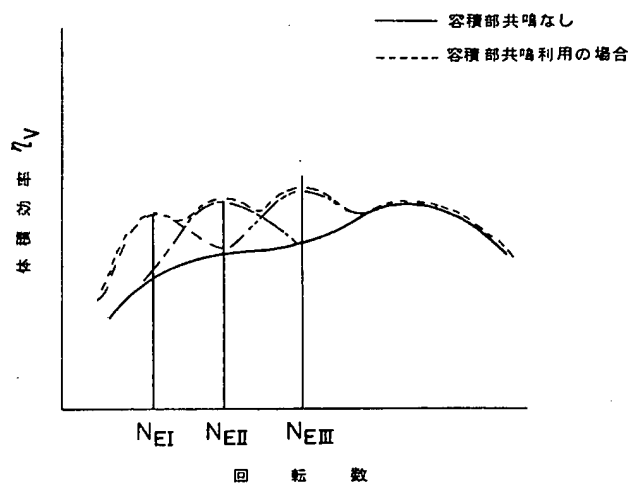
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第1図は本発明に係る実施例の構成図、第2図は同実施例と従来例の体積効率比較図、第3図は従来例の構成図である。

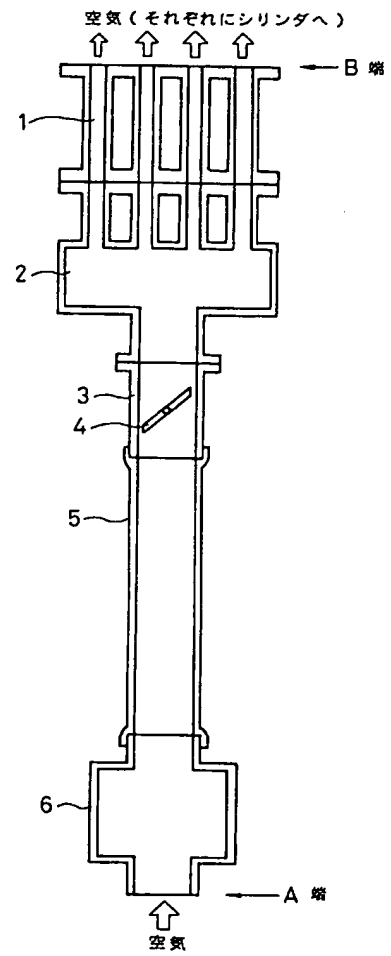
- (1, 2, 3, 5, 6) …吸気管主流部、
 7, 8, 9 …容量の異なる複数の容積部、
 10, 11, 12 …連通管、
 13, 14, 15 …電磁弁
 16 …コントローラ。

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第 2 図



第 3 図